ADDITIONAL OBSERVATIONS ON *ROBINSONELLA GLABRIFOLIA* FRYX. (MALVACEAE)

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ABSTRACT

A recent collection of *Robinsonella glabrifolia* extends the range of the species from southern México to Guatemala, permits an amplification of the description to include flowers and fruits (previously unknown), and clarifies our understanding of inflorescence structure in the genus, and consequently of sectional subdivision of the genus. On the basis of this improved understanding, section *Mirandella* is reduced to synonymy with section *Robinsonella*. Section *Grayella* is retained as distinct.

Robinsonella glabrifolia was described from a single locality in Chiapas (Fryxell 1985) on the basis of two collections that were in an early stage of flowering and therefore lacked fruiting structures. Additional material of this species extends the geographical range, provides new information on flowers and fruits, and provides added data relative to the nature of the inflorescence in the genus, bearing importantly on the infra-generic classification of *Robinsonella* (Fryxell 1973). This paper addresses the taxonomic implications of these three points.

GEOGRAPHICAL DISTRIBUTION

The type collection is from:

MEXICO: CHIAPAS. Mpio. La Trinitaria, 10 km ENE of Dos Lagos above Santa Elena, 1170 m, montane rain forest, 9 Feb 1982, *Breedlove 58430* (HOLOTYPE: CAS; ISOTYPE: pf).

The additional collections that have come to hand are:

CHIAPAS: Mpio. de Yajalón, Rancho Carmen, arbol de 10 m con flores blancas, 25 Mar 1984, *Ton 7472* (MEXU, pf). GUATEMALA: DEPT. PETÉN. La Cumbre, east of the village, in zapotal, on top of hill, small tree 35 ft high, 5 in. diam., corolla violet-white, 16 Mar 1975, *Lundell & Contreras 19108* (LL).

These localities are separated by distances of 200 – 300 km, and the range of the species now is known to extend to both sides of the Mexican-Guatemalan border.

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The corolla on the Lundell & Contreras specimen is described by the collectors as "violet-white." Examination of the specimen suggests that this refers to a petal that is white or pale lavender with a darker blotch at the base. The Ton collection bears mature fruits, although the label refers to white flowers. In amplification of the original description, the flowers and fruits may be further described as follows:

Petals obtriangular, 4.5 – 5 mm long, 3.5 mm wide, conspicuously ciliate on claw (hairs 0.6 mm long), otherwise glabrous; staminal column 3 – 4 mm long, glabrous, pallid, prominently 10-veined, antheriferous at the apex, the filaments 12 – 14, 1.7 mm long, the anthers 1 mm long, occasionally geminate; styles 7 – 8, slender, glabrous, pallid, exceeding the staminal column by up to 4 mm, the stigmas capitate. Fruits minutely stellate-pubescent; mericarps 7 – 9, 8 – 12 mm long, 3 – 4 mm wide, more or less falcate, inflated, 1-seeded; seeds basally situated, 3 mm long, minutely pubescent.

It may be noted that *R. glabrifolia* generally has fewer carpels (7 – 9) than other species of the genus, which have 8 – 30 carpels, most species having 10 or more.

INFLORESCENCE STRUCTURE

Robinsonella was divided into three sections by Fryxell (1973):

sect. *Robinsonella* having condensed axillary racemes, so condensed as to appear fasciculate (generally shorter than the subtending petiole);

sect. *Grayella* having paniculate inflorescences (generally longer than the subtending petiole); and

sect. *Mirandella* having an intermediate condition—the inflorescence racemose but less condensed, and longer or shorter than the subtending petiole.

These inflorescence characters are supported by pubescence characters.

The original description of *R. glabrifolia* (based on the Chiapan material) stated the inflorescences to be racemes about twice the length of the subtending petioles. The species was referred to section *Grayella* on the basis of these elongated inflorescences. The Guatemalan specimen, on the other hand, has racemes that are much shorter than the subtending petioles (Fig. 1). In the latter case, the inflorescences conform to those typical of other species of section *Robinsonella*, but in the former case they do not, in that the racemes are elongated rather than condensed. The axis of the inflorescence varies in length from 5 – 12 mm in the Guatemalan plant to 25 – 55 mm in the Chiapan plant. Apart from this difference in axis length, however, the racemose nature of the inflorescence is a common feature of the two collections, including the tendency to have the flowers borne in pairs along the raceme axis.

In our opinion, these two collections are conspecific; the expression of

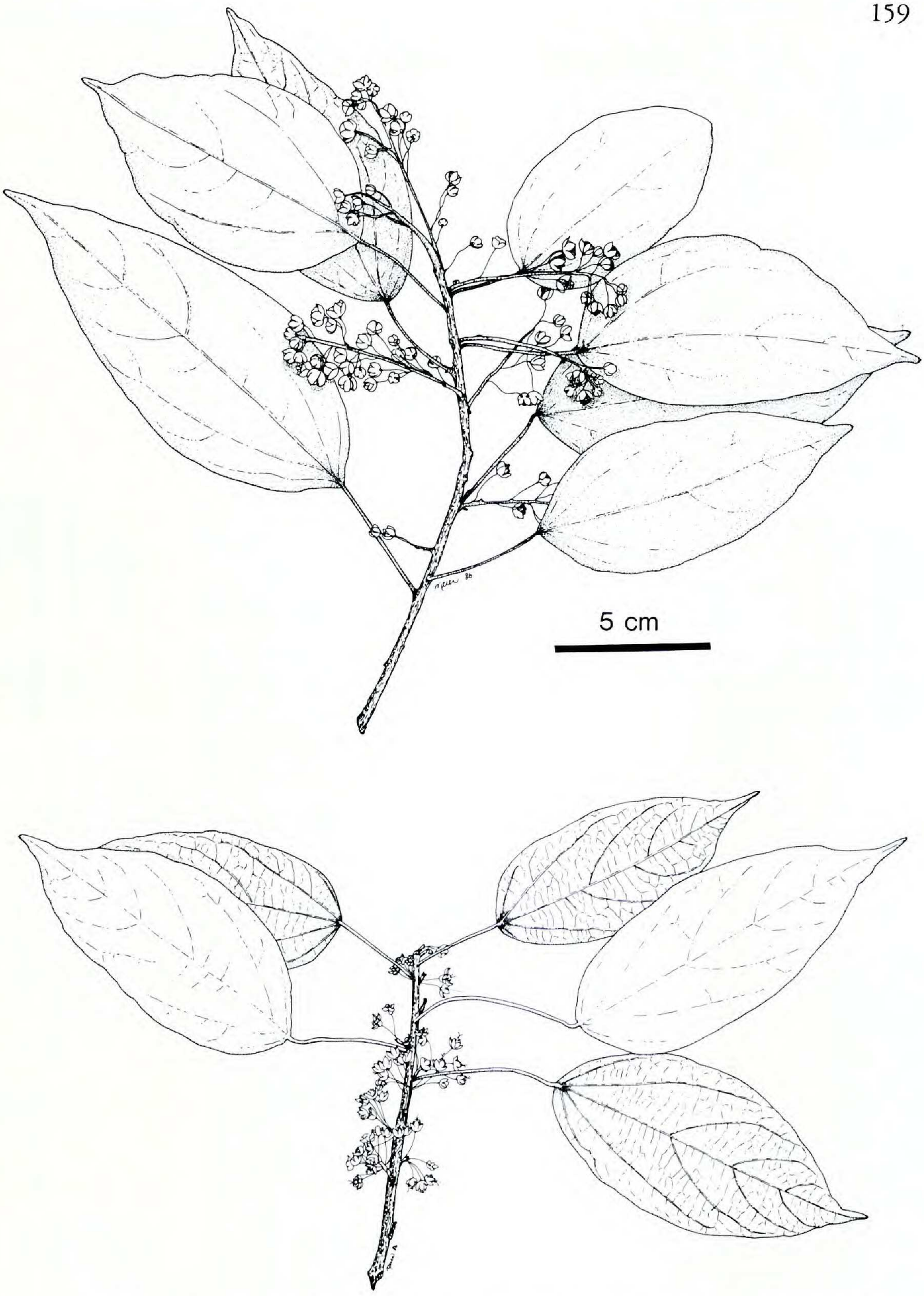

FIG. 1. *Robinsonella glabrifolia*. Inflorescence and subtending leaf of Chiapan plant (above, *Breedlove 58430*) and of Guatemalan plant (below, *Lundell & Contreras 19108*).

inflorescence size is labile but the racemose nature of the inflorescence, with paired flowers, is stable. This being so, a re-examination of these characters at the sectional level is needed, especially concerning the "intermediate" section *Mirandella*, with the lability of inflorescence size especially in mind. A reconsideration (and re-examination of inflorescences of *R. mirandae* Gómez-Pompa, the only species in section *Mirandella*) strongly indicates that *R. mirandae* be included in section *Robinsonella*, and therefore that section *Mirandella* be reduced to a synonym of section *Robinsonella*. Furthermore, we believe that *R. glabrifolia* is properly included in section *Robinsonella*, and not in section *Grayella*.

Inflorescence length varies intraspecifically in *R. glabrifolia* and is therefore not a useful character in distinguishing sections of the genus. The type of inflorescence (axillary panicle vs. axillary raceme), however, appears stable among the species. In further consideration of this question, a more detailed study of pubescence types and a search for additional supporting characters among the species of *Robinsonella* is desired. Because of its labile inflorescence development, *R. glabrifolia* clearly holds a pivotal position in a reconsideration of sectional characterization in *Robinsonella*, and it would be desirable to have additional collections of this species available, beyond those reported here, as a basis for such a study.

ACKNOWLEDGMENT

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